

Date: Fri, 25 Feb 94 04:30:37 PST
From: Ham-Digital Mailing List and Newsgroup <ham-digital@ucsd.edu>
Errors-To: Ham-Digital-Errors@UCSD.Edu
Reply-To: Ham-Digital@UCSD.Edu
Precedence: Bulk
Subject: Ham-Digital Digest V94 #50
To: Ham-Digital

Ham-Digital Digest Fri, 25 Feb 94 Volume 94 : Issue 50

Today's Topics:

 ??Using Kantronics KPC-3 w/MAC
 DR590+BAYCOM-MODEM
 DR590_with_Baycom_Modem_(engl.)
 HELP - Packet w/o TNC... (2 msgs)
 HELP ME, PLEASE! I need YOUR opinions about the future...
 KAM plus vs. PK-900 question
 megabit per second packet (was "Re: Packet at 1.2 GHz (23cm)?")
 Protocols used in commercial packet?
 VHS VCR Design??

Send Replies or notes for publication to: <Ham-Digital@UCSD.Edu>
Send subscription requests to: <Ham-Digital-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Digital Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-digital".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Thu, 24 Feb 1994 04:32:45 GMT
From: ukma!hookup!news.kei.com!eff!usenet.ins.cwru.edu!howland.reston.ans.net!
agate!library.ucla.edu!news.ucdavis.edu!chip.ucdavis.edu!szhall@seismo.css.gov
Subject: ??Using Kantronics KPC-3 w/MAC
To: ham-digital@ucsd.edu

I am considering using a MAC PLUS with a Kantronics KPC-3 TNC with my VHF
radio for packet..Anyone out there done this and how do u feel about it?
I also need a wiring diagram for TNC to computer..Please reply by
E-MAIL..Tnx..Jeff N6MYF

Date: 24 Feb 1994 11:13:11 GMT

From: ukma!hookup!news.kei.com!eff!news.umbc.edu!europa.eng.gtefsd.com!
howland.reston.ans.net!math.ohio-state.edu!jussieu.fr!univ-lyon1.fr!
swidir.switch.ch!scsing.switch.ch!news.dfn.de!news.@
Subject: DR590+BAYCOM-MODEM
To: ham-digital@ucsd.edu

Ein OM versucht verzweifelt mit DR590+BAYCOM-MODEM in PR auf die Beine zu
kommen. Das Modem ist in Ordnung, aber das PR-modulierte Sendesignal aus dem
DR590 ist nicht sauber. An anderen Funkgeraeten, z.B. C528 arbeitet das Modem
problemlos. Hatte jemand schon mal aehnliche Probleme?
73 de Wil

T E C H N I C A L U N I V E R S I T Y I L M E N A U
=====

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Am Ehrenberg, Haus F, Fak. MB
PSF 327
D-98684 Ilmenau

email: Wilfried.Besig@Maschinenbau.tu-ilmenau.de
(ax25: DG00D@DB0RSV.#THR.DEU)

Date: 24 Feb 1994 11:30:39 GMT
From: news.kei.com!eff!usenet.ins.cwru.edu!howland.reston.ans.net!pipex!
zaphod.crihan.fr!jussieu.fr!univ-lyon1.fr!swidir.switch.ch!scsing.switch.ch!
news.dfn.de!news.uni-jena.@yeshua.marcam.com
Subject: DR590_with_Baycom_Modem_(engl.)
To: ham-digital@ucsd.edu

Hallo,
a friend of mine is trying to start with packet-radio. He is equipped with
ALINCO DR590 and home-made Baycom Modem. Unfortunately the nearby digipeater
is not able to decode his transmitted signal. The modulation is not clear.
With Handy C528 the equipment works well.
But I think the DR590 is not wrong.
Does anybody have a hint to solve the problem?
Thanks for reading this message!
7e de Wil, DG00D

T E C H N I C A L U N I V E R S I T Y I L M E N A U
=====

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email: Wil@Maschinenbau.tu-ilmenau.de
(ax25: DG00D@DB0RSV.#THR.DEU.EU)

Date: Wed, 23 Feb 1994 07:33:08 -0600
From: mvb.saic.com!unogate!news.service.uci.edu!usc!howland.reston.ans.net!gatech!
asuvax!pitstop.mcd.mot.com!mcdphx!schbbs!mothost!lmpsbbs!NewsWatcher!
user@network.ucsd.edu
Subject: HELP - Packet w/o TNC...
To: ham-digital@ucsd.edu

In article <CL8Fnr.2tu@on.bell.ca>, ydupont@Qc.Bell.CA (Yvan Dupont) wrote:

>
> I'm this kind of person who always want to do more with less. I'm
> looking for a new challenge.
>
> I LOOKING FOR A WAY TO DO PACKET WITHOUT HAVING A TNC...
>
> I own a PC XT with internal 1200 bauds modem and also a MAC+ with an
> external V32/42bis ComStation V modem.
>

I'm going to climb out on a limb here and ASSUME that the PC
modem is a standard Type 212, which uses 1200 baud PSK, not
the standard 202 used by the amateur community. I can guarantee
that the ComStation V is also not compatible.

>
> I don't know that much about PACKET, but is it possible using that
> hardware (one of these two platforms) and some fancy software to start
> doing PACKET. Am I crazy or is it a good challenge?
>

Unfortunately neither modem uses the FSK tone pattern
(1200 Mk/2200 Sp) that is standard for packet operations on VHF.
They also do not support the 170 Hz shifts (2125 Mk/2295 Sp or
1200 Mk/1370 Sp) used for HF packet. Therefore you should abandon
the idea of using these particular pieces of hardware, but don't
drop the project!

Instead might I suggest that you build a simple one (XR2207) or two chip (XR2205/XR2211?) "modem" which you CAN interface to the PC of your choice. Now you have home-built a Baycom equivalent interface, though probably not so small as to fit inside a DB25 connector. Software to perform the AX.25 coding is available for either platform on several FTP sites - use the stuff labeled Baycom.

You'll note that the narrow shift is the same as used for RTTY on HF, so the suggestion that follows could become a multi-mode unit if you can find RTTY software as well as packet.

I'm sure there are several packeteers in your area who would be happy to assist you in homebrewing what they spent several hundred C\$ to purchase. In addition to saving money, you will learn more about RTTY, packet, and modems this way. By the way, hams never SAVE money, they just allocate it toward the next pending project!

>
> My rig is a FT-530.
>
> Thanks for your help
>
> Yvan - VE2YDU
>
> Bell SYGMA, Telecom Solutions
> 30 Renaud, Loretteville (Qc) CANADA G2A 2K7
> TEL: 418-843-7564 FAX: 418-842-9559
> Internet: ydupont@Qc.bell.CA HAM: VE2YDU
> -----
> Disclaimer: The opinions expressed here are mine and not my employer's.

--
Karl Beckman, P.E. < STUPIDITY is an elemental force for which >
Motorola Comm - Fixed Data < no earthquake is a match. -- Karl Kraus >

Some of the opinions expressed above aren't even claimed by the author!
Amateur radio WA8NVW @ K8MR.NEOH.USA.NA NavyMARS VBH @ NOGBN

Date: 24 Feb 1994 10:41:09 -0600
From: elroy.jpl.nasa.gov!swrinde!cs.utexas.edu!convex!news.utdallas.edu!corpgate!
crchh327.bnr.ca!crchh620.bnr.ca!not-for-mail@ames.arpa
Subject: HELP - Packet w/o TNC...
To: ham-digital@ucsd.edu

Karl Beckman <CSLE87@email.mot.com> wrote:
> ydupont@Qc.Bell.CA (Yvan Dupont) wrote:

>>
>> I LOOKING FOR A WAY TO DO PACKET WITHOUT HAVING A TNC...
>>
>> I own a PC XT with internal 1200 bauds modem and also a MAC+ with an
>> external V32/42bis ComStation V modem.
>>
>
>I'm going to climb out on a limb here and ASSUME that the PC
>modem is a standard Type 212, which uses 1200 baud PSK, not
>the standard 202 used by the amateur community. I can guarantee
>that the ComStation V is also not compatible.

Yvan, your project sounds very similar to what I'm trying to do.
My project involves a satellite transmission received by a dish
carrying packet data which is decoded and displayed on a high-res
monitor. A rep from the company who transmits this service told
me yesterday that this signal is at 38,400 baud!! Major stimey
for me. . .

>Unfortunately neither modem uses the FSK tone pattern
>(1200 Mk/2200 Sp) that is standard for packet operations on VHF.
>They also do not support the 170 Hz shifts (2125 Mk/2295 Sp or
>1200 Mk/1370 Sp) used for HF packet. Therefore you should abandon
>the idea of using these particular pieces of hardware, but don't
>drop the project!

Does the above info apply also to satellite transmission at over 3 Ghz?
This is a service transmitted by a company for specific market data.
I am merely attempting to discover if my idea is valid or not. The
company's systems could not be that sophisticated, because they are not
very expensive to lease. . . Total (standalone) equipment involved is:
- an 18" satellite dish with coax cable runing to ...
- a 'decoder' box (about the size of a mini-desktop PC) with a ...
- high-res monitor attached.

(I have not been inside the decoder box to see the hardware,
but it is supposed to have its own satellite receiver and
3 processors (for signal decode, data display, and ??))

What I want to do is:

replace the decoder box with a small satellite receiver and run the
signal directly into a modem on my PC and decode the packet data in
software; then display the data on my PC monitor.

Problems I foresee:

interference on my PC from the 3 Ghz frequency,
the tone pattern standardization mentioned above

As you can see, I'm new to this type of communication, and am fudging

my way through; learning as I go. Karl, can this idea of mine work?
Even theoretically? Anybody else have input?

>> Yvan - VE2YDU

>--

>Karl Beckman, P.E.

Allen Willson BNR claims no responsibility for
PBX software design my rambling.
Bell-Northern Research
Richardson, Texas

Date: 24 Feb 1994 09:00:19 GMT
From: news.acns.nwu.edu!math.ohio-state.edu!howland.reston.ans.net!gatech!udel!
cae09.baylor.edu!mwn@network.ucsd.edu
Subject: HELP ME, PLEASE! I need YOUR opinions about the future...
To: ham-digital@ucsd.edu

I am a member of Baylor University's new amateur radio club and
I have had my license for about nine months. I am also doing a research
paper on the future of digital amateur radio communications. I have
compiled research from amateur radio magazines, but I would like
to have more opinions from hams who work with digital, packet, etc.

Some of the questions that I am trying to answer include:

- *What are some of the new applications or uses that digital amateur
radio is expanding into?
- *What is currently under development?
- *Which of these shows the most promise for widespread acceptance?
- *Which of these new uses or applications do you find the most
interesting or exciting?
- *What kind of new services could new satellites provide for digital
amateur radio?
- *And especially, could these new uses or applications run into problems
with the FCC regulations for Digital Amateur Radio?

My real goal with this research paper is to use it to inspire other Baylor
students to join our amateur radio club and get their licenses. I have
found amateur radio to be a fun and challenging hobby and I would like
to use some of YOUR comments and opinions to encourage others to
become hams.

You can e-mail your comments, answers, or opinions to me at
mwn@gandalf.baylor.edu or you can post them here since I check the
newsgroup almost daily. I would greatly appreciate any help that
you can provide.

73's de matt --kc5cge

```
-----  
Matt Nering | "Is that a burnt op amp I  
smell, |  
-->mwn@gandalf.baylor.edu | or did you take your  
Waco, Texas U.S.A. | shoes off?"  
Baylor Amateur Radio Club  
kc5cge
```

Date: Thu, 24 Feb 1994 03:29:38 GMT
From: ukma!hookup!news.kei.com!sol.ctr.columbia.edu!howland.reston.ans.net!agate!
library.ucla.edu!csulb.edu!csus.edu!netcom.com!fmitch@seismo.css.gov
Subject: KAM plus vs. PK-900 question
To: ham-digital@ucsd.edu

Gary L. Johnson (gjohnson@indirect.com) wrote:
: In article <1994Feb21.085407.1404@phycs1.byu.edu>, peterson@phycs1.byu.edu says:
: >
: >I am looking at purchasing a good multi-mode controller. It appears that the
: >two that fit the bill are the Kantronics KAM plus and the AEA PK-900. They
: >both appear to support simultaneous operation on HF plus VHF packet. However,
: >the PK-900 specifically states that it is possible to add 9600 baud packet to
: >the box but the KAM plus does not. Does anyone out there know if the KAM plus
: >can be modified or upgraded to support 9600 baud packet on VHF?
: >
: >Thanks for your help.
: >
: >Bryan Peterson, ki7td
: >peterson@phycs1.byu.edu

hi bryan, mitch wa4osr here in mobile, alabama...

i have not used the kam, but have had a pk-900 plus the 9600 baud board for it... it is a nice unit but a *power hog*... it pulls over an amp... other than that, it is a superb unit... the modems work great, and the software is typical aea... the 9600 baud board works great, and the output waveform at 9600 baud looked almost as good as the dsp-2232... way better than the mfj or pac-comm 9600 baud units (lots of am)... the other negative is that it is a *BIG* box... you could easily put probably about 4 cams in the pk-900... either unit is very good, but if you plan on any 9600 baud work, terrestrial (lots of dx clusters are going to require users to go to 9600) or the pacsats then the pk-900 is the preferable unit...

cul...
mitch, wa4osr
--

fmitch@netcom.com
Felton "Mitch" Mitchell, WA4OSR in Mobile, Alabama USA
205-342-7259 home, 205-476-4100 work, 205-476-0465 FAX
co-sysop for W4IAX bbs running fbb ... sysop for WA4OSR DXCluster in Mobile..

Date: 24 Feb 1994 05:43:36 GMT
From: elroy.jpl.nasa.gov!usc!yeshua.marcam.com!charnel!xmission!u.cc.utah.edu!
cs.weber.edu!val@ames.arpa
Subject: megabit per second packet (was "Re: Packet at 1.2 GHz (23cm)?")
To: ham-digital@ucsd.edu

In article <CLL1D1.JC6@cscsun.rmc.edu> dtiller@cscsun.rmc.edu (David Tiller)
writes:

:Val Kartchner (val@cs.weber.edu) wrote:
:: What little I know about the 23cm band is from a recent article (from
:: a few months ago) in QST.
:
:: 1 - It takes a Gunplexer.
:
:: 2 - Since the receiver oscillator is derrived from the transmitter,
:: it is a full-duplex path (on a frequency pair).
:
:Perhaps you mean 10GHz?? I don't think I've ever seen a Gunnplexer for
:1.2 GHz. These days 1.2GHz isn't that esoteric - with the flood of
:DBMs, gain blocks (MMICs) around, 1.2 GHz should be fairly easy to design
:for.

My questions in light of information which I have received (besides the
above) are: How can I get megabit per second rates over amateur ratio?
What is necessary, and how do I connect it to my computer?

Fortunately, due to the posting, I have found some contacts for megabit
per second packet in Utah. (They actually found me by replying to my
post. :-)) It may still be useful to discuss the subject in this newsgroup.

73 -- KB7VBF

--
|===== #include <stdclaimer.h> =====//=====|
| "AMIGA: The computer for the creative mind" (tm) Commodore /// Weber State |
| "Macintosh: The computer for the rest of us"(tm) Apple \\\\/// University |

|== "I think, therefore I AMiga" -- val@csulx.weber.edu ==\///= Ogden UT USA =|

Date: Thu, 24 Feb 1994 12:10:54 GMT
From: ukma!hookup!news.kei.com!eff!news.umbc.edu!europa.eng.gtefsd.com!
howland.reston.ans.net!cs.utexas.edu!convex!news.utdallas.edu!corpgate!nrtpa22!
brtph560!b4pph13e!cnc23a@seismo.css.gov
Subject: Protocols used in commercial packet?
To: ham-digital@ucsd.edu

In article <hpeach.79.000C6AAF@ca.uky.edu>, hpeach@ca.uky.edu (Harold G. Peach Jr.) writes:

|> AX.25 is used and was developed specifically for the amateur community.
|> However, in our area there are several _business band_ users using a type of
|> packet that amateur TNCs can not decode. The signals sound VERY similar to
|> amateur packet (seems like 1200 baud FSK). Is/are there any commercial radio
|> standards equivilent to AX.25? Proprietary?
|> ---
|> Harold
|> hpeach@ca.uky.edu

Intresting,

I have heard the same 'type' of thing on 450(comm/gov) here as well. The only 440 rig I have is am HT, and I haven't built a cable to interface it to my TNC. I was going to try to MONITOR and then use the TRACE command. It should show even non-AX.25 stuff comming across. Right ?

Have you tied this ?

Would be intrested in the outcome if it works.

73s

--

=====

Ken M. Edwards, PE Bell Northern Research, Research Triangle Park, NC
(919) 481-8476 email: cnc23a@bnr.ca Ham: N4ZBB Packet: n4zbb@n1gmv.nc
DX PacketCluster (tm) Node : W4DW

All opinions are my own and do not necessarily reflect the views of
my employer or co-workers, family, friends, congress, or president.

Date: Wed, 23 Feb 1994 18:36:33 GMT
From: ukma!hookup!news.kei.com!yeshua.marcam.com!zip.eecs.umich.edu!
newsxfer.itd.umich.edu!gatech!europa.eng.gtefsd.com!library.ucla.edu!csulb.edu!
csus.edu!netcom.com!endicott@seismo.css.gov
Subject: VHS VCR Design??
To: ham-digital@ucsd.edu

I know this is not what this group is usually about, but I've posted a message on the video groups, and have no intelligent answers, and I know most hams are into a variety of electronics.

I am looking for someone who understands VHS VCRs, possibly a repair tech or the like to explain why, in the 2 VSH VCRs that I've used, while scanning in forward or reverse, and I issue the command to scan in the opposite direction, the VCR pauses a second or so in freeze frame, while I hear a motor whirring inside before it is able to go in the opposite direction. This is not to be confused with going fast forward or rewind with the tape wound back into the cassette. None of the Beta machines I've had do this. They go instantly from one scan direction (with picture) to the opposite direction.

If you wish to post publicly, fine, but would you send me EMail letting me know you've posted an answer so that I can rush back and look. I am soon to be in the market for a VHS VCR and I use them for studying films, TV shows, etc., and that pause with VHS is driving me crazy!

Thanks for your patience.

--

Robert Endicott (endicott@netcom.com)
Left Los Angeles just in time! (rumble, rumble, shake, shake)
Now living in Atlanta.

Date: Thu, 24 Feb 1994 16:50:00 GMT
From: ukma!hookup!news.kei.com!sol.ctr.columbia.edu!howland.reston.ans.net!
cs.utexas.edu!utnut!torn!falcon.ccs.uwo.ca!mbramwel.business.uwo.ca!
MARK@seismo.css.gov
To: ham-digital@ucsd.edu

References <2jtu35\$npng@u.cc.utah.edu>, <CLL1D1.JC6@cscsun.rmc.edu>,
<2kheq8\$jru@u.cc.utah.edu>ctr.c
Subject : Re: megabit per second packet (was "Re: Packet at 1.2 GHz (23cm)?")

>My questions in light of information which I have received (besides the
>above) are: How can I get megabit per second rates over amateur ratio?

>What is necessary, and how do I connect it to my computer?

>Fortunately, due to the posting, I have found some contacts for megabit
>per second packet in Utah. (They actually found me by replying to my
>post. :-)) It may still be useful to discuss the subject in this newsgroup.

I dropped all HAM stuff and picked up a pair of commercial wireless network
cards. They operate at 902-928 1/4 watt. They give you 2meg/sec. They
have packet drivers. FTP transfers are 120k/sec when transferring BIG files.

The cards are made by NCR and are called NCR wavelan. There are a few OEM
reabeled versions of the same.

I currently pass ipx, ipx and appletalk through my link. I am using it now.

Date: Thu, 24 Feb 1994 11:59 EST
From: agate!howland.reston.ans.net!sol.ctr.columbia.edu!usenet.ucs.indiana.edu!
indyvax.iupui.edu!medicine.dmed.iupui.edu@ames.arpa
To: ham-digital@ucsd.edu

References <2kheq8\$jru@u.cc.utah.edu>, <2jtu35\$npng@u.cc.utah.edu>,
<CLL1D1.JC6@cscsun.rmc.edu>s.ind
Subject : Re: megabit per second packet (was "Re: Packet at 1.

>
> My questions in light of information which I have received (besides the
> above) are: How can I get megabit per second rates over amateur radio?
> What is necessary, and how do I connect it to my computer?
>
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> per second packet in Utah. (They actually found me by replying to my
> post. :-)) It may still be useful to discuss the subject in this newsgroup.

>
> 73 -- KB7VBF

> --

I'm very interested in hearing about megabit per second packet. I'm
interested in hearing about what it takes to do packet above 2400 baud.
I would like to setup a link 40-50 miles away that is relatively fast.
I don't mind building things, so if all it takes is building a modem,
no problem. I'm sure it's harder than that though. :(
Jay KA9OKT

End of Ham-Digital Digest V94 #50
